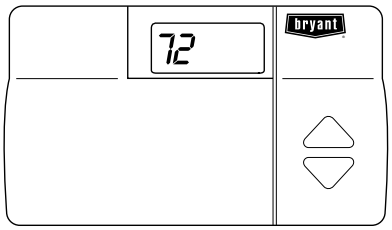
bryant
Heating & Cooling Systems

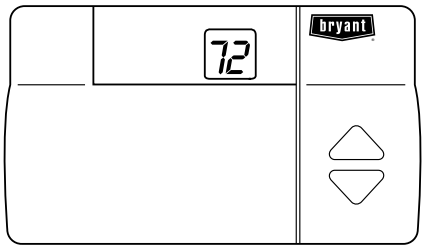
THERMOSTATS
THERMIDISTAT™ CONTROL

MODEL
TSTAT

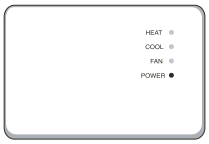
THERMIDISTAT: INDUSTRY LEADING TEMPERATURE PLUS HUMIDITY CONTROL

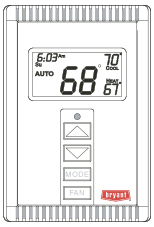


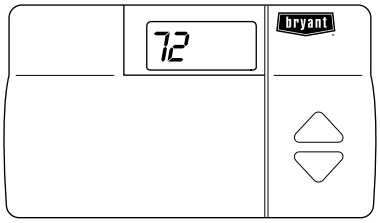
DELUXE NON-PROGRAMMABLE THERMOSTATS



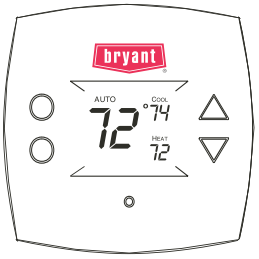
PREMIUM PROGRAMMABLE THERMOSTATS



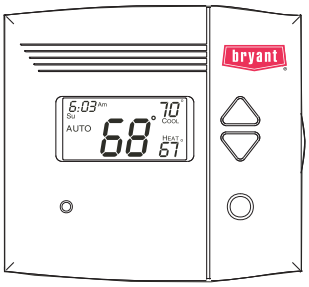


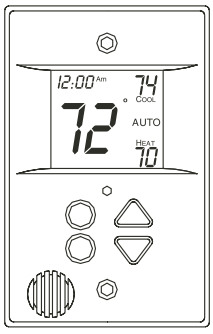


STANDARD NON-PROGRAMMABLE THERMOSTATS

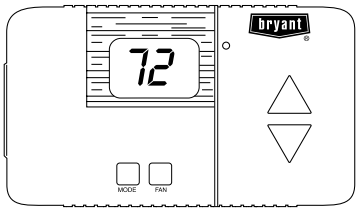


DELUXE PROGRAMMABLE THERMOSTATS

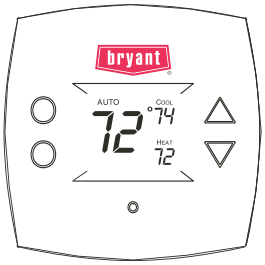


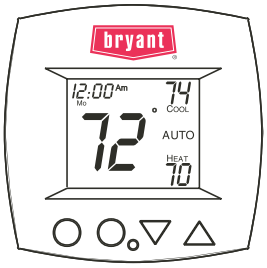


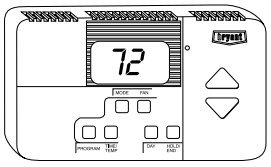
BUILDERS NON-PROGRAMMABLE THERMOSTAT



STANDARD PROGRAMMABLE THERMOSTATS







The Bryant electronic thermostat product line consists of programmable and non-programmable air conditioner, heat pump, and 2-speed models; a programmable dual fuel model; a programmable wireless thermostat and a programmable/non-programmable Thermidistat™ Control. Bryant also offers builder's and standard programmable thermostats in both air conditioner and heat pump models. These units feature non-mercury based electronic controls built into a subtle, slim plastic enclosure. They require no battery back-up.

FEATURES/BENEFITS

THERMIDISTAT CONTROL

The Thermidistat Control and include the above features plus:

- One model for heating/cooling
- Humidity display
- Humidify output for direct control of humidifier settings
- Dehumidify output for variable-speed blowers
- Vacation mode controls temperature and humidity while home is unoccupied
- Non-programmable set-up option
- Super Comfort Heat mode – when applied with 40FKA or FK4C Comfort Heat Package
- Dual Fuel Compatible
- Battery Free

PREMIUM PROGRAMMABLE CONTROL FEATURES:

- Modes include OFF, COOL, HEAT, AUTO, and EHEAT (emergency heat on heat pump models only)
- Fan modes include ON and AUTO
- Equipment ON indicators
- Auto changeover available on all models (can be disabled)
- Liquid Crystal Display that displays current room temperature at all times, and desired temperature/programming prompts upon demand
- Backlighting for LCD upon demand
- Large, soft rubber pushbuttons with tactile action
- Non-volatile memory to retain setting during a power outage
- Two set points, 1 for heating and 1 for cooling
- Clean filter indicator (Time limit adjustable)
- Auxiliary heat indicator (Heat pump models only)
- Five minute compressor timeguard
- English/Metric (∞F/∞C) selection (Installer adjustable)
- Anticipator adjustment controls sensitivity, cycles per hour
- Seven day programming, with 4 time periods per day
- Hold function for temporarily overriding program schedule
- Outdoor temperature sensing (Optional)
- Copy function for ease of programming
- Auxiliary heat lock-out (Heat pump and dual fuel models using outdoor sensor)
- Fan activation--automatic fan with heat (Optional for packaged units)
- Residential installations eligible for financing through Retail Credit Program
- Room temperature sensor offset allows installer to deliberately offset indoor room temperature to accommodate homeowner's needs.
- Battery Free

DELUXE PROGRAMMABLE CONTROL FEATURES:

- Modes include OFF, COOL, HEAT, AUTO, and EHEAT (emergency heat on heat pump models only)
- Fan modes include ON and AUTO
- Equipment ON indicators
- Auto changeover available on all models (can be disabled)
- Liquid Crystal Display that displays current room temperature at all times, and desired temperature/programming prompts upon demand

MODEL NUMBER NOMENCLATURE

T STAT – Thermostat

BB – BB – Bryant Brand

N
- B – Builder's Model
- S – Standard Programmable
- P – Programmable
- N – Non-Programmable
- R – Wireless Receiver

AC
- AC – Air Conditioning
- HP – Heat Pump
- 2S – Two Speed/Two Stage
- DF – Dual Fuel
- RH – Relative Humidity (Thermidistat Control)
- LH – Light Commerical Humidity
- S1 – Slim Line 1 day
- S7 – Slim Line 7 day
- F1 – Flush Mount 1 day
- F7 – Flush Mount 7 day
- CO – Cooling only
- HO – Heating only
- 2W – 2 Wire A/C and H/P
- B0 – A/C & H/P No Program
- B1 – A/C & H/P 1 day
- B5 – A/C & H/P 5 day & 2 day
- B7 – A/C & H/P 7 day
- EC – Reciever
- RF – Wireless Sensor

01 – Quantity

–B – Series

As an ENERGY STAR® Partner, Bryant Heating & Cooling Systems has determined that the programmable thermostats and programmable Thermidistat Control meet the ENERGY STAR® guidelines for energy efficiency.

- Backlighting for LCD configurable for always on operation
- Large, soft rubber pushbuttons with tactile action
- Non-volatile memory to retain setting during a power outage
- Two set points, 1 for heating and 1 for cooling
- Clean filter indicator (Time limit adjustable)
- Auxiliary heat indicator (Heat pump models only)
- Five minute compressor timeguard
- English/Metric (°F/°C) selection (Installer adjustable)
- Anticipator adjustment controls sensitivity, cycles per hour
- Seven day programming, with 4 time periods per day
- Hold function for temporarily overriding program schedule
- Outdoor temperature sensing (Optional)
- Copy function for ease of programming
- Auxiliary heat lock-out (Heat pump and dual fuel models using outdoor sensor)
- Fan activation--automatic fan with heat (Optional for packaged units)
- Residential installations eligible for financing through Retail Credit Program
- Battery Free
- Room temperature sensor offset allows installer to deliberately offset indoor room temperature to accommodate homeowner's needs.
- Available in 1-Day Programmable configurations (Model # TSTATBBPS101 or TSTATBBPF101

STANDARD PROGRAMMABLE CONTROL FEATURES

- Rubber push buttons with tactile action
- Modes include HEAT, OFF, and COOL
- Fan modes include AUTO and ON
- Manual changeover
- Battery free
- Mercury free
- English/Metric selection
- Temperature sensor offsets
- Large display
- Battery Free
- Power Stealing option available on AC models only
- Available in 1-Day Programmable configurations (Model # TSTATBBPB101

DELUXE NON-PROGRAMMABLE CONTROL FEATURES

- Modes include OFF, COOL, HEAT, AUTO, and EHEAT (emergency heat on heat pump models only)
- Fan modes include ON and AUTO
- Equipment ON indicators
- Auto changeover available on all models (can be disabled)
- Liquid Crystal Display that displays current room temperature at all times, and desired temperature/programming prompts upon demand
- Backlighting for LCD upon demand
- Large, soft rubber pushbuttons with tactile action
- Non-volatile memory to retain setting during a power outage
- Two set points, 1 for heating and 1 for cooling
- Clean filter indicator (Time limit adjustable)
- Auxiliary heat indicator (Heat pump models only)
- Five minute compressor timeguard
- English/Metric (°F/°C) selection (Installer adjustable)
- Anticipator adjustment controls sensitivity, cycles per hour
- Outdoor temperature sensing (Optional on all models except non-programmable AC)
- Auxiliary heat lock-out (Heat pump and dual fuel models using outdoor sensor)
- Fan activation—automatic fan with heat (Optional for packaged units)
- Residential installations eligible for financing through Retail Credit Program
- Room temperature sensor offset allows installer to deliberately offset indoor room temperature to accommodate homeowner's needs.
- Battery Free

STANDARD NON-PROGRAMMABLE CONTROL FEATURES

- Modes include OFF, COOL, HEAT, AUTO, and EHEAT (emergency heat on heat pump models only)
- Fan modes include ON and AUTO
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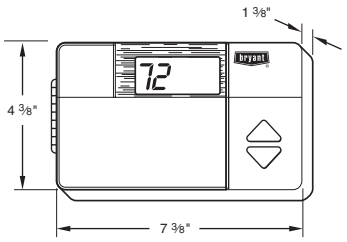
- Non-volatile memory to retain setting during a power outage
- Two set points, 1 for heating and 1 for cooling
- Clean filter indicator (Time limit adjustable)
- Auxiliary heat indicator (Heat pump models only)
- Five minute compressor timeguard
- English/Metric (°F/°C) selection (Installer adjustable)
- Anticipator adjustment controls sensitivity, cycles per hour
- Outdoor temperature sensing (Optional on all models except non-programmable AC)
- Auxiliary heat lock-out (Heat pump and dual fuel models using outdoor sensor)
- Fan activation—automatic fan with heat (Optional for packaged units)
- Residential installations eligible for financing through Retail Credit Program
- Room temperature sensor offset allows installer to deliberately offset indoor room temperature to accommodate homeowner's needs.
- Battery Free

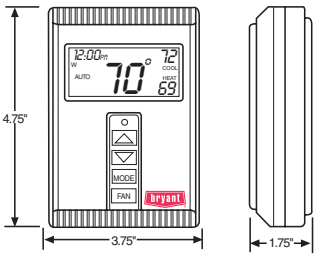
BUILDERS NON-PROGRAMMABLE CONTROL FEATURES

- Rubber push buttons with tactile action
- Modes include HEAT, OFF, and COOL
- Fan modes include AUTO and ON
- Manual changeover
- Battery free
- Mercury free
- English/Metric selection
- Temperature sensor offsets
- Large display
- Power Stealing option available on AC models only

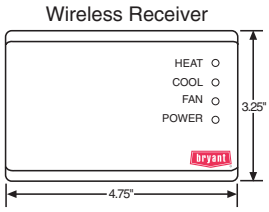
DIMENSIONS

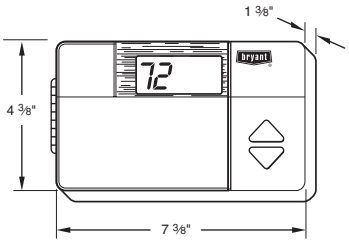


Thermidistat Control

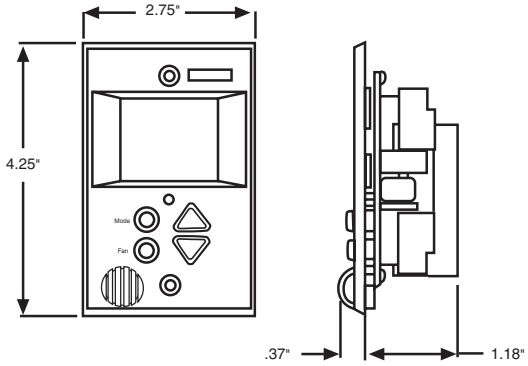


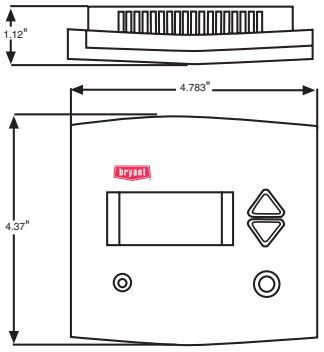
Wireless Sensor



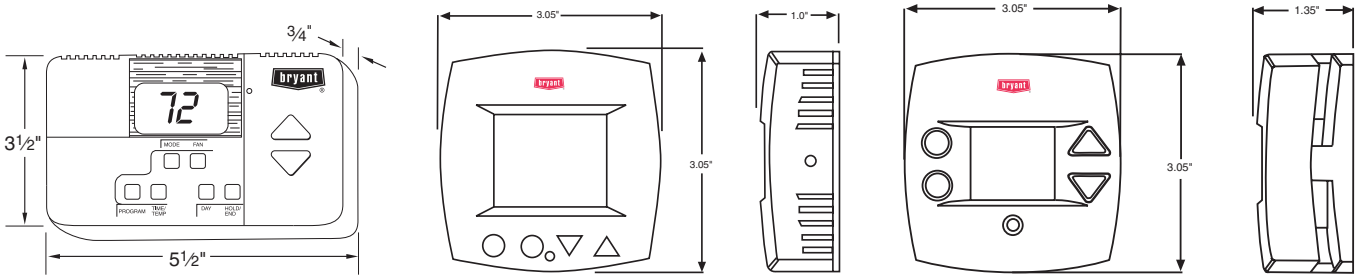


Premium Programmable Thermostat Control

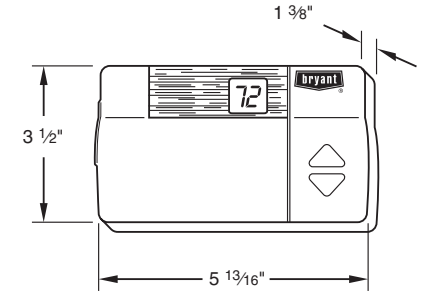




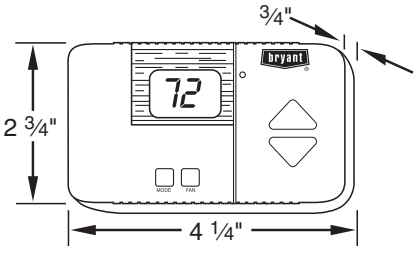
Deluxe Programmable Thermostat Control



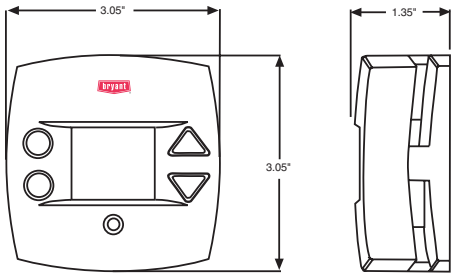
Standard Programmable Thermostat Controls



Deluxe Non-Programmable Thermostat Controls



Builder's Model Thermostat Control



Standard Non-Programmable Thermostat Controls

PRODUCT DATA INFORMATION

PHYSICAL CHARACTERISTICS

Premium, Deluxe, Standard Programmable; Deluxe, Standard non-programmable:

Dimensions: See drawing
Appearance: Plastic, eggshell color, textured

Builder's/Standard Programmable Models:

Dimensions: See drawing
Appearance: Plastic, designer white, textured, white, grey rubber push buttons

ELECTRICAL CHARACTERISTICS

Premium, Deluxe, Standard Programmable; Deluxe, Standard non-programmable:

Input Volts/Amps: 24vac, 1 VA

Builder's/Standard Programmable Models:

Input Volts/Amps: 24vac, 5 VA

ENVIRONMENTAL REQUIREMENTS:

Operating Temperature/Relative Humidity: 32°F (0°C) to 104°F (40°C), 95% rh non-condensing

Storage Temperature/Relative Humidity: –40°F (–40°C) to 134°F (56°C), 95% rh non-condensing

PROGRAM SPECIFICATIONS:

Premium, Deluxe Programmable Models:

Temperature set point range: 40°F (4°C) to 90°F (32°C)
Separate heat and cool set points
Auto changeover—can be disabled
Clean filter reminder: installer adjustable
Permanent memory
Programming days: 7 day
Programming periods: 4—Wake, Day, Eve, Sleep
Hold function
Copy previous day function
Humidity display and control (Thermidistat Control only)
Equipment On indicator (Thermidistat Control only)
Vacation Programming

Standard Programmable Models:

Temperature set point range: 50°F (10°C) to 90°F (32°C)
Manual changeover
Non-volatile memory
Fahrenheit or Celsius selectable
Power-stealing option on AC model
Selectable fan ON or OFF with auxiliary heating (HP model)
Five-minute compressor timeguard
Four cycles per hour maximum
Auxiliary heat LED on heat pump models
5 & 2 day programming

Deluxe, Standard, Builder's Non-Programmable Models:

Temperature set point range: 40°F (4°C) to 90°F (32°C)
Separate heat and cool set points
Auto changeover—can be disabled
Clean filter reminder: installer adjustable
Permanent memory
Equipment On indicator

WIRING REQUIREMENTS:

Power: 24vac nominal, 18- to 30-vac, 50/60 Hz

Wiring: Standard thermostat wire 18 to 22 gage.

DESCRIPTION

THERMIDISTAT CONTROL

PART NO.	DESCRIPTION
TSTATBBPRH01-B	Thermidistat Control – Non-Programmable/Programmable Thermostat with Humidity Control. (For use in Dual Fuel, AC, HP, and 2S applications. Includes Outdoor Air Temperature Sensor.)

PREMIUM PROGRAMMABLE THERMOSTATS

PART NO.	DESCRIPTION
TSTATBBPRF01	Thermostat, Auto Changeover, 7-Day Programmable, °F/°C, Wireless Transmitter with range up to 500 ft.
TSTATBBREC01	Wireless Receiver.
TSTATBBPAC01-B	Thermostat, Auto Changeover, 7-Day Programmable, °F/°C, 1-Stage Heat/1-Stage Cool
TSTATBBPHP01-B	Thermostat, Auto Changeover, 7-Day Programmable, °F/°C, 2-Stage Heat/1-Stage Cool
TSTATBBP2S01-B	Thermostat, Auto Changeover, 7-Day Programmable, °F/°C, 2-Stage Heat/2-Stage Cool in AC Mode, 3-Stage Heat/2-Stage Cool in HP Mode
TSTATBBPDF01-B	Dual Fuel Thermostat, Outdoor Temperature Sensor included

DELUXE PROGRAMMABLE THERMOSTATS

PART NO.	DESCRIPTION
TSTATBBPS101	Thermostat, Auto Changeover, single Day programmable, Slimline Style
TSTATBBPS701	Thermostat, Auto Changeover, 7-day programmable, Slimline Style
TSTATBBPF101	Thermostat, Auto Changover, single day programmable, Flushmount style
TSTATBBPF701	Thermostat, Auto Changover, 7-day programmable, Flushmount style

STANDARD PROGRAMMABLE THERMOSTATS

PART NO.	DESCRIPTION
TSTATBBSAC01	Thermostat, Manual Changeover, 5-2 Day Programmable, °F/°C, 1-Stage Heat/1-Stage Cool
TSTATBBSHP01	Thermostat, Manual Changeover, 5-2 Day Programmable, °F/°C, 2-Stage Heat/1-Stage Cool
TSTATBBPB101	Thermostat, Programmable, F/°C, simple 1 day programmable, T2 style
TSTATBBPB501	Thermostat, 5 +2 day programmable, Super T2 style, F/°C
TSTATBBP2W01	Thermostat, Programmable, 2-wire, 7-day program schedule, Copy, Vacation, Super T2 style

DELUXE NON-PROGRAMMABLE THERMOSTATS

PART NO.	DESCRIPTION
TSTATBBNAC01-B	Thermostat, Auto Changeover, Non-Programmable, °F/°C, 1-Stage Heat/1-Stage Cool
TSTATBBNHP01-B	Thermostat, Auto Changeover, Non-Programmable, °F/°C, 2-Stage Heat/1-Stage Cool

STANDARD NON-PROGRAMMABLE THERMOSTATS

PART NO.	DESCRIPTION
TSTATBBNB001	Thermostat, Non-programmable, F/°C, 1-Stage Heat/1-Stage Cool, T2 style
TSTATBBN2W01	Thermostat, Non-programmable, 2-Wire, heat only or cool only, F/°C, T2 style

BUILDERS NON-PROGRAMMABLE THERMOSTATS

PART NO.	DESCRIPTION
TSTATBBBAC01-B	Thermostat, Manual Changeover, Non-Programmable, °F/°C, 1-Stage Heat/1-Stage Cool
TSTATBBBHP01-B	Thermostat, Manual Changeover, Non-Programmable, °F/°C, 2-Stage Heat/1-Stage Cool

THERMOSTAT ACCESSORIES

PART NO.	DESCRIPTION
TSTATXXSEN01-B*	Outdoor Air Temperature Sensor
TSTATXXNBP01†	Backplate for Non-Programmable Thermostat
TSTATXXPBP01†	Backplate for Programmable Thermostat and Thermidistat Control
TSTATXXBBP01†	Backplate for Builder's Model Thermostat
TSTATXXSBP01†	Backplate for Standard Programmable Thermostat
TSTATXXCNV10‡	Thermostat Conversion Kit (4 to 5 Wire) — 10 Pack

* Outdoor temperature sensor is an accessory for all Carrier electronic thermostats, except the non-programmable air conditioner version and builder's and Standard Programmable model thermostats. It allows the temperature at a remote location (outdoors) to be displayed on the thermostat.
The outdoor air temperature sensor ***must*** *be* used with the dual fuel thermostat.
The outdoor air temperature sensor is included with the Thermidistat Control and dual fuel thermostat.

† This plate is designed to cover surrounding wall area located behind thermostat.

‡ Thermostat conversion kit is a 24-vac accessory that can turn a 4-wire thermostat application into a 5-wire application. This kit can also be used to replace a broken thermostat wire, or add an extra wire when needed. Do not use this kit with the AC model of the Builder's or Standard Programmable thermostat.

OPERATIONAL INFORMATION

FIVE-MINUTE COMPRESSOR TIMEGUARD

This timer prevents the compressor from starting unless it has been off for at least 5 minutes. It can be defeated for 1 cycle by simultaneously pressing the FAN mode button and INCREASE TEMPERATURE (UP) button.

HEAT/COOL SET POINTS (DESIRED TEMPERATURE)

A minimum difference of 2° is enforced between heating and cooling desired temperatures. This is done by allowing one setting to "push" the other, to maintain this difference. (Thermidistat Control is adjustable.) Builder's thermostats are controlled by a single set point.

EQUIPMENT ON INDICATORS (NON-PROGRAMMABLE MODELS)

When cooling equipment is ON, a COOL ON icon is displayed above the room temperature display. When heating equipment is ON, a HEAT ON icon is displayed above the room temperature display.

EQUIPMENT ON INDICATORS (THERMIDISTAT CONTROL)

When cooling equipment is ON, a COOL icon preceded by a small triangle is displayed below the cool set point. While cooling equipment turn on is delayed by a staging or cycle timer, the triangle and the word COOL will flash. The same is true for the HEAT icon and its preceding triangle located under the heat set point. The 2 triangles are also used to indicate the state of the humidify and dehumidify outputs. See next section.

HUMIDIFY/DEHUMIDIFY OUTPUT ON INDICATORS (THERMIDISTAT CONTROL)

Within humidity select screen (selected by Humidity button and indicated by "hu" or "dhu" on clock display), the triangle under humidity set point will be on while humidify output is on. The triangle under dehumidify set point will be on while dehumidify output is active (turned off, because this output is reverse logic).

AUTO CHANGEOVER

When auto changeover mode is selected, a change from heat to cool (or vice versa) will not occur until an opposite mode demand has existed for 20 minutes. If set point is changed, the 20 minute requirement is deleted. Auto changeover mode can be disabled. Builder's and Standard Programmable thermostats are manual changeover.

EMERGENCY HEAT MODE

When thermostat is controlling a heat pump and emergency heat is selected, all Y signals are locked out, and W becomes energized upon a call for heat.

SMART RECOVERY (PROGRAMMABLE MODELS)

With Smart Recovery selected, transition out of setback begins a fixed time period before selected recovery time and gradually adjusts room temperature so that the desired temperature will be achieved at selected recovery time.

ROOM TEMPERATURE OFFSET (ALL MODELS)

Room temperature may be deliberately offset by up to 5°F in either direction.

MAXIMUM ON/OFF DEADBAND

Maximum sensed temperature difference between ON and OFF is 0.8°F for Builder's thermostats and 0.6°F for all other models.

bryant®
Heating & Cooling Systems

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

UNIT MUST BE INSTALLED IN ACCORDANCE
WITH INSTALLATION INSTRUCTIONS

Cancels: PDS TSTAT.04

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